



# **Air Quality Permitting Statement of Basis**

**January 4, 2005**

**Tier I Operating Permit No. T1-050105**

**Potlatch Corporation  
Post Falls Particleboard  
Post Falls, ID**

**Facility ID No. 055-00018**

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**FINAL**

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## **Acronyms, Units, and Chemical Nomenclatures**

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gr	grain (1 lb = 7,000 grains)
HAPs	Hazardous Air Pollutants
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
m	meter(s)
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
O <sub>3</sub>	ozone
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
T/yr	tons per year
µg/m <sup>3</sup>	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

## **Public Comment / Affected States / EPA Review Summary**

A 30-day public comment period for the Potlatch Corp. of Post Falls, Idaho draft Tier I operating permit was held from in accordance with IDAPA 58.01.01.364, *Rules for the Control of Air Pollution in Idaho*.

IDAPA 58.01.01.008.01 defines *affected states* as: "*All states: whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or that are within 50 miles of the Tier I source.*"

A review of the site location information included in the permit application indicates that the facility is located with 50 miles of a state border. Therefore, the state of Washington and state of Montana was provided an opportunity to comment on the draft Tier I operating permit.

### **Summary of Comments**

No comments were received from any affected state.

Comments were received from Rick Culpepper of the Potlatch Corporation on August 10, 2005 regarding the PTC.

A hearing was not requested.

## **1. PURPOSE**

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

## **2. FACILITY DESCRIPTION**

The Potlatch Post Falls facility manufactures particleboard from wood shavings and resin. Trucks deliver and dump wood shavings in one of two storage buildings. A drag chain feeds the wood shaving to milling machines, which process the wood shavings into furnish. The furnish is dried in a rotary dryer and temporarily stored in the outside dry silo. Furnish from the outside dry silo and sanderdust is then passed through a weigh system to either the #1 small blender and main blender, or the #2 small blender. In the blenders, resin is mixed with the sanderdust and furnish. The mix is conveyed to a former where the mix takes the shape of a mat approximately the size of a 4'X8' particleboard panel. The mats are pressed by the particleboard press, allowed to cool, cut to size, and sanded. Scrap from the saw line is processed back into furnish. Sanderdust generated by the process is stored, used for the manufacturing process or as fuel for the facility's Kipper and Sons boiler, or sold. The Kipper and Sons boiler provides steam heat for the process and plant make-up air.

## **3. FACILITY / AREA CLASSIFICATION**

Potlatch's Post Falls facility is defined as a major facility in accordance with IDAPA 58.01.01.008.10 for Tier I permitting purposes because the facility has the potential to emit (PTE) NO<sub>x</sub> and VOC at over 100 T/yr. The facility is not a Prevention of Significant Deterioration (PSD) major source because emissions do not exceed the PSD threshold of 250 T/yr. The AIRS classification is "A" because potential emissions of NO<sub>x</sub> and VOC are greater than 100 T/yr.

The facility is located within AQCR 62 and UTM zone 11. The facility is located in Kootenai County which is designated as unclassifiable for all criteria pollutants.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at Potlatch, Post Falls. This required information is entered into the EPA AIRS database.

## **4. APPLICATION SCOPE**

The facility's proposed project involves a modification of the facility's current Tier I operating permit No. 055-00018, issued December 10, 2002, that incorporates PTC No. P-050104, issued September 23, 2005. In accordance with IDAPA 58.01.01.209.05.b., DEQ has processed the PTC and Tier I operating permit application concurrently, and provided the Tier I operating permit and PTC P-050104 for public notice, comment, and EPA review. This process allowed the PTC to be issued, but did not allow the source to operate until the Tier I operating permit was issued.

The PTC project involved the installation of equipment to recover sanderdust generated by the manufacturing process and to use some of it in the manufacturing process rather than use it as hog fuel. The PTC project also established federally enforceable limits on HAP emissions so that the facility is a non-major HAP source, and therefore, not subject to 40 CFR 63, Subpart DDDD.

## **4.1 Application Chronology**

February 2, 2005	DEQ received application
March 3, 2005	DEQ determined application complete
April 21, 2005	DEQ received additional information
May 10, 2005	DEQ provided draft permit to facility for review
July 14 – August 15, 2005	DEQ provided draft permit for public comment
November 2, 2005	DEQ provided proposed permit via e-mail to EPA for review

## **5. PERMIT ANALYSIS**

This section of the Statement of Basis describes the regulatory requirements for this operating permit.

### **5.1 Regulatory Review**

This section describes the regulatory analysis of the applicable air quality rules with respect to this Tier I operating permit.

IDAPA 58.01.01.300..... Procedures and Requirements for Tier I Operating Permits

The facility is Tier I major facility with a current Tier I operating permit. The proposed project is significant modification of the current Tier I operating permit.

IDAPA 58.01.01.382..... Significant Permit Modification

This regulation stipulates the criteria and procedures for a significant permit modification. The proposed project is significant modification of the current Tier I operating permit that meets the criteria specified within the regulation IDAPA 58.01.01.210, Demonstration of Preconstruction Compliance with Toxic Standards.

40 CFR 63, Subpart DDDD..... National Emission Standards for Hazardous Air Pollutants:  
Plywood and Composite Wood Products

This subpart establishes compliance options, operating requirements, and work practice requirements for hazardous air pollutants (HAP) emitted from plywood and composite wood products (PCWP) manufacturing facilities that are a major source of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the compliance options, operating requirements, and work practice requirements for PCWP facilities that are a major source of HAP emissions. The requirements of this subpart do not apply to this facility because the facility-wide HAP emissions of the facility have been limited to below major source thresholds.

40 CFR 63, Subpart DDDDD..... National Emission Standards for Hazardous Air Pollutants for  
Industrial, Commercial, and Institutional Boilers and Process Heaters

This subpart establishes emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards. The requirements of this subpart do not apply to this facility because the facility-wide HAP emissions of the facility have been limited to below major source thresholds.

## **5.2 Fee Review**

The Potlatch Corp. Post Falls facility is a major facility as defined in IDAPA 58.01.01.008.10 and is therefore subject to registration and registration fees in accordance with IDAPA 58.01.01.387. The facility is current with its registration fees.

## **6. PERMIT CONDITIONS**

This section summarizes and explains the changes associated with the significant modification of this Tier I operating permit.

- 6.1 Facility-wide requirements have been updated to include updated language. The permit conditions of the emission unit formerly called Emission Unit Group 4 – Wood Handling have been incorporated into Emission Unit Group 3 – Wood Handling, Drying and Pressing.
- 6.2 Permit Condition 5.3 contains the visible emission requirements for the particleboard manufacturing process.
- 6.3 Permit Conditions 5.5, 5.6, 5.9, and 5.10 establish the operating, monitoring, and recordkeeping requirements necessary to demonstrate compliance with opacity limits of Permit Condition 5.3. These permit requirements, along with General Provision 2, require the permittee to operate the control equipment associated with the particleboard manufacturing process when it is operating, and assures compliance with the opacity requirements of Permit Condition 5.3.
- 6.4 Permit Condition 5.2 limits the PTE of facility-wide HAPs below major source thresholds.
- 6.5 Permit Condition 5.4 establishes the performance test requirements necessary to demonstrate compliance with Permit Condition 5.2. A performance test to measure total HAP was required in order to demonstrate compliance with the facility-wide HAP emission limit of less than 25 tons per any consecutive 12-month period (T/yr) for any combination of HAPs of Permit Condition 5.2. Performance tests to measure formaldehyde and methanol were required to demonstrate compliance with the facility-wide HAP emission limit of less than 10 tons per any consecutive 12-month period (T/yr) for any single HAP of Permit Condition 5.2. Permit Condition 5.4 shall be used to develop emission factor data necessary to demonstrate continuing compliance with Permit Condition 5.2. Permit Condition 5.6 also requires the permittee to conduct the performance test at minimum of 90% of the maximum furnish usage rate of the process in order to assure compliance with Permit Condition 5.2.
- 6.6 Permit Condition 5.4 defines total HAPs for the Permit. The definition was taken from 40 CFR 63.2292, and was included in the Permit to be consistent with 40 CFR 63, Subpart DDDD. The performance tests listed in Permit Condition 5.4 were also taken from 40 CFR 63, Subpart DDDD in order to be consistent with that subpart. No performance test were required to be performed on particle dryer because it's compliance demonstration procedures are based on formaldehyde and methanol emission factor developed from source tests at the facility. No performance tests were required to be performed on the sander air system and boiler because their compliance demonstration procedures are based on industry specific emission factors from NCASI Technical Bulletin No. 0771: Volatile Organic Compound Emissions from Wood Products Manufacturing Facilities, Part IV – Particleboard, published 1999.

- 6.7 Permit Condition 5.8 requires that the permittee monitor and record monthly and annually the HAP emissions from the press vents and East & West Sawline baghouses using the emission factors and furnish usage records required by Permit Conditions 5.4 and 5.7, respectively, to demonstrate compliance with Permit Condition 5.2. Permit Condition 5.8 requires that the permittee monitor and record monthly and annually the HAP emissions from the sander air system, particle dryer, and boiler using the furnish usage records required by Permit Condition 5.7. Records of the information used to determine monthly and annually the HAP emissions shall be maintained on site for the most recent two year period and shall be made available to DEQ representatives upon request in order to demonstrate compliance with Permit Condition 5.2.
- 6.8 Permit Condition 3.8 establishes a maximum pressure for boiler steam in order to limit emissions of. As taken from the July 19, 2001 technical analysis memorandum, the maximum pressure of 300 psi absolute corresponds to an actual dryer temperature of 397 deg. F, the temperature which Potlatch and DEQ has established to limit formaldehyde emissions. The citation for this permit condition has been updated to reflect the new PTC.

## **7. PERMIT REVIEW**

### **7.1 Facility Review of Draft Permit**

A facility draft permit was received by the facility on May 10, 2005. Comments were received and processed as requested.

### **7.2 Public Comment**

A public comment period was conducted from July 14 to August 15, 2005. During this time, there were no comments on the proposed action on the Tier I operating permit.

## **8. RECOMMENDATION**

Based on review of application materials and all applicable state and federal rules and regulations staff recommend that Potlatch Post Falls be issued modified Tier I Operating Permit No. T1-050105 for the sanderdust project.

AC/sd Permit No. T1-050105

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## **Appendix A**

### ***AIRS Information***

**T1-050105**

# **AIRS/AFS<sup>a</sup> FACILITY-WIDE CLASSIFICATION<sup>b</sup> DATA ENTRY FORM**

Facility Name: Potlatch Corporation  
 Facility Location: Post Falls  
 AIRS Number: 055-00018

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO <sub>2</sub>	A							U
NO <sub>x</sub>	A					A		U
CO	B							U
PM <sub>10</sub>	B		B					U
PT (Particulate)	B							U
VOC	A					A		U
THAP (Total HAPs)	B							
			APPLICABLE SUBPART					
			DC					

<sup>a</sup> Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

<sup>b</sup> AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).